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10/069,592	07/16/2002	Kenichi Ajiki	2002_0229A	3836

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EXAMINER


MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/069,592	Applicant(s) AJIKI, KENICHI	
	Examiner William H. Mayo III	Art Unit 2831	

-- Th MAILING DATE of this communication appears on th cov r sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 03 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on July 03, 2003. These drawings are approved.

Specification

2. The substitute specification filed July 03, 2003 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: Specifically, the substitute specification doesn't contain a clean copy of the specification.
3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

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4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because in line 9 it contains the term "comprising", which is improper language for the abstract. The applicant should replace the term with --having--. Also, in lines 5-6, the abstract refers to purported merits or speculative applications of the invention, which is improper content for the abstract. The applicant should delete the lines from the abstract. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 12-14 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferlier et al (Pat Num 4,808,966, herein referred to as Ferlier). Ferlier

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discloses an enameled wire (Figs 1-3) capable of being marked by a laser. (Col 1, lines 4-5). Specifically, with respect to claim 12, Ferlier discloses an enameled wire (Fig 2) comprising a core wire (16), that may be made of copper (Col 3, lines 39-42), an insulating coated layer (20 & 21), a melting layer (19) which covers the insulating coating layer (20 & 21), wherein the insulating coated layer (20 & 21) efficiently absorbs a laser beam (Col 4, lines 23-29). With respect to claims 13-14, Ferlier discloses that the insulated coated layer (20 & 21) comprises a colored resin, which is colored with a pigment (Cols 2 & 3, lines 23-30 & 50-55 respectively). With respect to claim 16, Ferlier discloses that the melting layer (19) melt (i.e. destroyed) upon heat applied from a laser (Col 1, lines 40-47). With respect to claim 17, Ferlier discloses that the insulated coated layer (20 & 21) is capable of absorbing a laser beam from a YAG or CO₂ laser (Col 3, lines 1-14). With respect to claim 18, Ferlier discloses that the insulated coated layer (20 & 21) is non-transparent (i.e. black, Col 3, lines 50-57). With respect to claim 19, Ferlier discloses that the insulated coated layer (20 & 21) are color to have an absorption band corresponding to an oscillation wavelength of a laser used to generate the laser beam (Col 3, lines 1-17). With respect to claim 20, Ferlier discloses that the insulating coated layer (20 & 21) is capable of absorbing more of the laser beam than the melting layer is to absorb (Col 4, lines 23-29).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ferlier et al (Pat Num 4,808,966). Ferlier discloses an enameled wire (Figs 1-3) capable of being marked by a laser. (Col 1, lines 4-5).

However, Ferlier doesn't necessarily disclose the melting layer being transparent.

Ferlier does teach that conventional enameled wires having transparent melting layers as known in the art. Specifically, with respect to claim 15, Ferlier teaches that an enameled wire having a transparent outer layer (i.e. melting layer), which is transparent, is known in the art (Col 1, lines 18-25).

With respect to claim 15, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the melting layer of Ferlier to be made of transparent material, since it is well known in the art of enameled wires that transparent layers are commonly utilized in cables and since it has been held to be within general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

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10. Claims 21-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Own Admission of Prior Art (herein referred to as AOAPA) in view of Ferlier et al (Pat Num 4,808,966). AOAPA discloses a conventional insulated wire (Figs 5-7) for usage with electronic application devices (see applicant's description of prior art on pages 1-3). Specifically, with respect to claim 21, AOAPA discloses a method of soldering a enameled wire (1) comprising the steps of irradiating a laser beam to an enameled wire (1) comprising a core wire (1b) made of copper (page 1, paragraph 5 of applicant's specification), an insulating layer (1c) covering the core wire (1b), a melting layer (1d) covering the insulating layer (1c), wherein the insulating layer (1c) is formed of a material that absorbs a laser beam (page 2, paragraph 8 & 10), stripping at least a part of the insulating coating (1c) by a laser beam (page 2 paragraphs 10-11) and soldering the core wire (1b) to a soldering portion (4) by a laser beam (pages 2-3, paragraph 12). With respect to claim 22, AOAPA discloses a method wherein the soldering portion has the same shape of the laser beam spot (Fig 7). With respect to claim 23, AOAPA discloses a method wherein the soldering portion has the same shape of the laser beam (Fig 7). With respect to claim 24, AOAPA discloses a method wherein a step of providing an empty space underneath the soldering portion of a soldering land (Fig 7). With respect to claim 25, AOAPA discloses a method comprising irradiating a laser beam to an enameled wire (1) that includes a core wire (1b) made of copper (page 1, paragraph 5 of applicant's specification), an insulating layer (1c), a melting layer (1d). With respect to claim 26, AOAPA discloses a method comprising irradiating a laser beam to an enameled wire (1) that includes a core wire (1b) made of

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copper (page 1, paragraph 5 of applicant's specification), an insulating layer (1c), a melting layer (1d). With respect to claim 27, AOAPA discloses a method of irradiating a laser beam to an enameled wire (1) that includes a core wire (1b) made of copper (page 1, paragraph 5 of applicant's specification), an insulating layer (1c), a melting layer (1d). With respect to claim 28, AOAPA discloses a method of irradiating a laser beam to an enameled wire (1) that includes a core wire (1b) made of copper (page 1, paragraph 5 of applicant's specification), an insulating layer (1c), a melting layer (1d). With respect to claim 29, AOAPA discloses a method of irradiating a laser beam to an enameled wire (1) that includes a core wire (1b) made of copper (page 1, paragraph 5 of applicant's specification), an insulating layer (1c), a melting layer (1d). With respect to claim 30, AOAPA discloses an electro-acoustic transducer (Fig 5) comprising a plate (3) having a center pole (2), a coil (1a) disposed on the plate (3) wherein the coil (1a) is formed of an enameled wire (Fig 6) comprising a core wire (1b) made of copper (page 1, paragraph 5 of applicant's specification), an insulating coated layer (1c) covering the core wire (1b), a melting layer (1d) covering the insulating coated layer (1c), wherein the insulating coated layer (1c) is formed of a material that absorbs a laser beam (page 2, paragraph 8 & 10), a terminal (4) for connection with the enamel wire (1) molded with a resin with at least a soldering portion exposed outside (page 1, paragraph 4), a magnet (5) fixed to the plate (3), a diaphragm (6) disposed above the magnet (5) with a space to the center pole (2) which has to have a magnetic material disposed, and a resin body (7) having an empty space in at least a part underneath the soldering portion of the terminal (Fig

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5). With respect to claims 31-25, AOAPA discloses that the insulating coated layer (1c) is formed of a material that absorbs a laser beam (page 2, paragraph 8 & 10).

However, AOAPA doesn't necessarily disclose an insulating coated layer being for efficiently absorbing the laser beam (claim 21), nor the insulating coating layer being a colored resin (claims 25 & 31), nor the insulating coating layer being colored with dye or pigment (claims 26 & 32), nor the insulating coating layer being non-transparent to the laser beam (claims 27 & 33), nor the insulating coating layer being a color that has an absorption band corresponding to an oscillation wavelength of a laser used to generate the laser beam (claims 28 & 34), nor the melting layer absorbing less of a laser beam than the insulating coated layer (claims 29 & 35).

Ferlier teaches an enameled wire (Figs 1-3) capable of being marked by a laser. (Col 1, lines 4-5) in order to obtain the underlying layer (Col 1, lines 40-47). Specifically, With respect to claims 25-26 & 31-32, Ferlier discloses that the insulated coated layer (20 & 21) comprises a colored resin, which is colored with a pigment (Cols 2 & 3, lines 23-30 & 50-55 respectively). With respect to claims 27 & 33, Ferlier discloses that the insulated coated layer (20 & 21) is non-transparent (i.e. black, Col 3, lines 50-57). With respect to claims 28 & 34, Ferlier discloses that the insulated coated layer (20 & 21) are color to have an absorption band corresponding to an oscillation wavelength of a laser used to generate the laser beam (Col 3, lines 1-17). With respect to claims 29 & 35, Ferlier discloses that the insulating coated layer (20 & 21) is capable of absorbing more of the laser beam than the melting layer is to absorb (Col 4, lines 23-29).

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With respect to claims 25-29 and 31-34, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the enameled wire of AOAPA to comprise the colored insulating layer as taught by Ferlier because Ferlier teaches that such a configuration provides the capability to obtain the underlying layer (Col 1, lines 40-47) and makes it possible to obtain a high quality marking (Col 2, lines 8-11).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Kimura et al (Pat Num 6,239,376) and Higashiura et al (Pat Num 5,337,941), both of which disclose enameled wires.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Communication

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (703) 306-9061. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



WHM III
August 24, 2003